



CVID 2021

CVID 2021

Sunday, October 10, 2021 to Wednesday, October 13, 2021

Cardiovascular Implant Durability Inc

Jul. 30 to Sep. 30

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Join us on the beautiful Monterey Coast at the Asilomar Conference Center for a unique and defining three-day conference focused on understanding, predicting, and optimizing the durability of cardiovascular implants.

This event is intended to link anatomic and physiological conditions to implant design and to the engineering mechanics of fracture. CVID brings together experts in the fields of medicine, biomechanics, computational analysis, and engineering testing from the medical device industry, academia, physicians, and regulatory agencies.

Attendees, Sponsors, and Exhibitors: This conference is ideal for engineers and clinicians interested in cardiovascular implant design and durability. With renowned engineering and physician speakers from industry, academia, and regulatory agencies, this conference will provide an up-to-date review of the field. Uniquely, CVID is sponsored by medical device companies, with exhibits by equipment manufacturers, and preclinical, clinical, simulation, and benchtop testing service companies.

Schedule:

Day One, October 11th: Boundary Conditions

The first day will introduce medical imaging and quantification tools used to determine vascular deformations, and to summarize current knowledge of important vascular beds including structural heart, aortic, arterial, venous, and neurovascular. These boundary conditions, which are critical for design and durability prediction, differ dramatically depending on anatomy, pathology, and implantation of devices.

Day Two, October 12th: Computational Analysis

The second day will focus on the translation of in vivo forces and displacements to the stresses and strains that ultimately determine implant durability. Finite Element Analysis will be emphasized with examples of how it can be used effectively and misused. We will also discuss future improvements in modeling techniques and verification and validation, with the end goal of using models to justify abbreviating costly clinical trials.

Day Three, October 13th: Engineering Predictions

The final day will turn to engineering mechanics and how device lifetime can be predicted from analytical stress and strains. The role of material variation will be discussed, as well as the merits of strain-based, stress-based, and energy-based approaches to fatigue. Benchtop testing, both of finished devices and "test coupons", will be discussed in

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regards to shortening testing and determining safety margins.

Panel Discussions: There will be provocative panel discussions to provide perspectives from industry, regulatory agencies, service providers, and physicians.

Lodging:

Please visit <https://cvidconference.org/>

Course Directors:

Chris Cheng, PhD

Kelly Suh, PhD

Craig Bonsignore

Alan Pelton, PhD

Juan Granada, MD

Terry Woods, PhD, FDA

Ken Ouriel, MD

Tom Duerig, PhD

Faculty:

Please visit <https://cvidconference.org/>

Questions:

Please contact info@cvidconference.org

Meeting City and State: Pacific Grove, CA

Meeting Location: Asilomar Conference Center 800 Asilomar Ave Pacific Grove, CA 93950

Abstract Deadline: Saturday, May 15, 2021 to Thursday, July 15, 2021